



August 9 - 13, 2015 · Fairmont Château Laurier · Ottawa, Ontario, Canada

Draft* List of Presentations and Posters

*this list is subject to full paper review and the detailed program and presentation schedule will be available at a later date

Welds & Weld Metals	BWR SCC & Water Chemistry	Plant Operating Experience
<p>Evaluation of the Temperature Dependency of Alloy 690 and Alloy 690 Weld Metal SCC Growth in Hydrogenated Water <i>Presenter: David Morton, KAPL BMPC</i></p>	<p>Stress Corrosion Cracking of Type 304 Stainless Steels in BWR Environments during Power Startup Operation <i>Presenter: Tsung-Kuang Yeh, National Tsing Hua University</i></p>	<p>MRP-227 Reactor Vessel Internals Inspection Planning and Initial Results at the Oconee Nuclear Station Unit 3 <i>Presenter: Sarah Davidsaver, AREVA Inc.</i></p>
<p>Stress Corrosion Cracking of a 52M Weld Overlay in a PWR Environment <i>Presenter: Bogdan Alexandreanu, Argonne National Laboratory</i></p>	<p>In-Process Electrochemical Corrosion Potential Monitoring Experience at Boiling Water Reactors Utilizing On-line Noblechem™ for Mitigation of Intergranular Stress Corrosion <i>Presenter: Susan Garcia, EPRI</i></p>	<p>IGSCC in a BWR Steam Line after 30 years of Operation <i>Presenter: Ulla Ehrstén, VTT</i></p>
<p>Stress Corrosion Cracking of Alloy 152 Weld Butter near the Low Alloy Steel Interface <i>Presenter: Bogdan Alexandreanu, Argonne National Laboratory</i></p>	<p>Stress Corrosion Cracking Behavior of CF8A Cast Austenitic Stainless Steel in Simulated HWC Environment <i>Presenter: Chien-Lin Lai, Institute of Nuclear Energy Research</i></p>	<p>Characterization of Materials Properties and Crack Propagation Mechanisms in Damaged Alloy 718 Leaf Springs Following Commercial Reactor Exposure <i>Presenter: Keith Leonard, Oak Ridge National Laboratory</i></p>
<p>SCC Crack Initiation in Nickel Base Welds in Hydrogenated Steam at 400°C. <i>Presenter: Elizabeth Chaumum, CEA & MINES Paristech</i></p>	<p>Modelling of IG-SCC Mechanism at LWR Conditions through Coupling of a Potential-Based Cohesive Model and Fick's Second Law <i>Presenter: Michal Sedlak, Royal Institute of Technology, KTH</i></p>	<p>Laboratory Analysis of a Boat Sample Removed from Bottom Mounted Nozzle #3 at Palo Verde Unit 3 <i>Presenter: James Hyres, Babcock & Wilcox</i></p>
<p>The SCC Behavior of Alloy 82/Low Alloy Steel Dissimilar Metal Weld in the Fusion Boundary Region in Simulated PWR Primary Water Environments <i>Presenter: Jian Xu, Tohoku University</i></p>	<p>Stress Corrosion Cracking Behavior of Alloy 690 in BWR Environment <i>Presenter: Yohei Ono, Toshiba Corporation</i></p>	<p>Laboratory Analysis of Cracked CRDM Housings from Palisades <i>Presenter: James Hyres, Babcock & Wilcox</i></p>
<p>An Update on Alloys 690/52/152 PWSCC Initiation Testing <i>Presenter: Kimihisa Sakima, Mitsubishi Heavy Industries, Ltd.</i></p>	<p>Effect of Long Term Aging on Stress Corrosion Cracking of Martensitic Stainless Steels <i>Presenter: Yoshinori Katayama, Toshiba Corporation</i></p>	<p>Hold Down Spring Failure Analysis <i>Presenter: Jacqueline Stevens, AREVA Inc.</i></p>
<p>Factors Affecting the Low Temperature Crack Propagation (LTCP) Susceptibility of Nickel-Based Alloy 182, 82, 152 and 52 Weld Metals <i>Presenter: Matias Ahonen, Research Scientist</i></p>	<p>Noble Metal Applications for SCC Mitigation in BWRs: Platinum Nanoparticle Penetration into Crevices and Cracks Under Controlled Flow Conditions <i>Presenter: Pascal Grundler, Paul Scherrer Institut</i></p>	<p>Review of US Experience on In-Plant Gamma Spectrometry for Source Term Control Monitoring <i>Presenter: Carola Gregorich, EPRI</i></p>
<p>Crack Growth Rate Measurements in Alloy 182 in PWR Primary Water at Low Stress Intensity <i>Presenter: Anders Jessen, Studsvik Nuclear AB</i></p>	<p>Phase Separation Study of In-service Thermally Aged Cast Stainless Steel – Atom Probe Tomography <i>Presenter: Martin Bjurman, Studsvik Nuclear AB / Royal Institute of Technology (KTH)</i></p>	<p>Admiralty Brass Main Condenser Tube Degradation at Fitzpatrick <i>Presenter: Bill Bock, Entergy, Fitzpatrick Station</i></p>
<p>Properties and Performance of a High Chromium Nickel Alloy Filler Metal: EN52i <i>Presenter: George Young, Bechtel Marine Propulsion Corporation</i></p>	<p>SCC and Crevice Corrosion Resistances of Tantalum-modified Stainless Steel <i>Presenter: Junya Kaneda, Hitachi-GE Nuclear Energy</i></p>	<p>An Investigation into Stress Corrosion Cracking Susceptibility of the Repaired Pressuriser at the Sizewell B PWR in the UK <i>Presenter: Alan George, EDF Energy</i></p>
<p>Stress Corrosion Crack Growth Measurements in Alloy 152/52 to Low Alloy Steel Dissimilar Metal Weld Dilution Zone Regions <i>Presenter: Mychailo Toloczko, Pacific Northwest National Laboratory</i></p>	<p>Corrosion Kinetics of Nickel-Base Alloys with High Chromium Contents under Simulated BWR Normal Water Chemistry Conditions and High Flow Velocity <i>Presenter: Jiaxin Chen, Studsvik Nuclear AB</i></p>	<p>Evaluation and Implementation of a Methodology for Dispositioning In-service Induced Flaws in Zr-2.5%Nb Pressure Tubes of CANDU Power Reactors <i>Presenter: Yong-Zhi Wang, Canadian Nuclear Safety Commission</i></p>

PWR Stainless Steel Corrosion Fatigue	Ferritic Steel & Corrosion Fatigue	PWR Secondary Side
<p>Evaluation of Oxide/Metal Interfaces Formed in Type 304/304L Stainless Steel During Environmentally Enhanced and Retarded Fatigue Crack Growth in Deaerated Pressurized Water Using High Resolution Analytical Electron Microscopy</p> <p><i>Presenter: Bryan Miller, Bechtel Marine Propulsion Corporation</i></p>	<p>Effect of High-temperature Water and Hydrogen on the Fracture Behavior of a Low-alloy Reactor Pressure Vessel Steel</p> <p><i>Presenter: Supratik Roychowdhury, Paul Sherrer Institut</i></p>	<p>Summary of SCC/IGA Findings at Bruce Site Reactors Unit 3 and 4</p> <p><i>Presenter: Ernest Lu, Bruce Power</i></p>
<p>The Effect of Environment, Chemistry, and Microstructure on the Corrosion Fatigue Behavior of Austenitic Stainless Steels in High Temperature Water</p> <p><i>Presenter: Lindsay O'Brien, Bechtel Marine Propulsion Corporation</i></p>	<p>Fatigue Behavior of Low-alloy Ferritic Steel and Corresponding Dissimilar Metal Weld Subjected to Oxygenated High Temperature Water</p> <p><i>Presenter: Matthias Carsten Kammerer, University of Stuttgart</i></p>	<p>The Environmentally Assisted Cracking of Incoloy 800 and Higher-Chromium Variants in Mildly Acidic Sulphate Environments</p> <p><i>Presenter: Jared Smith, Canadian Nuclear Laboratories Limited</i></p>
<p>The Effect of Sulfur on SCC and Corrosion Fatigue Performance of Stainless Steel in Deaerated Hydrogenated Water</p> <p><i>Presenter: Elaine West, Bechtel Marine Propulsion Corporation</i></p>	<p>Effect of Stress Intensity Factor Rate (dK/dt) on Crack Growth Behavior of Low Alloy Steels and a Crack Growth Disposition Curve Including dK/dt Effect</p> <p><i>Presenter: Taku Arai, CRIEPI</i></p>	<p>Stress Corrosion Cracking Growth Rate of Alloy 800 on Secondary Side Crevice Environment</p> <p><i>Presenter: Maria-Lynn Turi, Kinectrics Inc.</i></p>
<p>Mean Stress Effect on the Fatigue Life of 316L Austenitic Steel in Air and Simulated Boiling Water Reactor Hydrogen Water Chemistry Environment</p> <p><i>Presenter: Philippe Spätig, LNM-NES-Paul Scherrer Institute</i></p>	<p>Summary of the Results of a German Research Project on Chloride Effects on the General Corrosion and Stress Corrosion Cracking Behavior of LAS under BWR Conditions</p> <p><i>Presenter: Matthias Georg Josef, AREVA GmbH</i></p>	<p>The First Two Occurrences of External Damage on 600TT Alloy Tubes in France</p> <p><i>Presenter: Marc Boccanfuso, EDF</i></p>
<p>Comparison of Fatigue Crack Mechanisms of 304L Austenitic Stainless Steel in Air And in PWR Primary Environment</p> <p><i>Presenter: Thierry Couvant, EDF R&D</i></p>	<p>Measurements of Fatigue Initiation of Carbon Steel in High Temperature Water Using Blunt Notch Compact Tension Specimens</p> <p><i>Presenter: Peter Brown, Amec Foster Wheeler</i></p>	<p>Pb effects on NiO and Pb-Contained Solution Interface with the High-resolution X-ray Reflectivity</p> <p><i>Presenter: Jongjin Kim, Argonne National Laboratory</i></p>
<p>The Effect of Load Ratio on the Fatigue Crack Growth Rate of Type 304 Stainless Steels in Air and High Temperature Deaerated Water at 482°F</p> <p><i>Presenter: Brian McGraw, Bechtel Marine Propulsion Corporation</i></p>	<p>Effect of ppb Levels of Chloride on the Stress Corrosion Cracking of Pressure Vessel Steel</p> <p><i>Presenter: Xiaoyuan Lou, GE Global Research Center</i></p>	<p>On the Help of Combing ATEM with Various Scale Examinations in the Understanding of Two Case of Degradations Recently Observed on French Steam Generator</p> <p><i>Presenter: Laurent Legras, EDF R&D</i></p>
<p>Electrochemical Study on the Corrosion of 304L Stainless Steels with High and Low Sulfur Contents</p> <p><i>Presenter: Yusaku Maruno, Massachusetts Institute of Technology</i></p>	<p style="text-align: center;">Welds, Assessments & Modeling</p> <p>PWSCC Initiation Model Refinement for xLPR Part II: A Statistical Framework for the Integration of Field and Laboratory Data</p> <p><i>Presenter: Kyle Schmitt, Dominion Engineering Inc.</i></p>	<p>PbSCC of Alloy 800NG Steam Generator Tubing in Alkaline Conditions</p> <p><i>Presenter: Brent Capel, EPRI</i></p>
<p>Influence of Hold Times on Fatigue Crack Growth of Austenitic Stainless Steel in PWR Environments and Implications for Mechanistic Understanding</p> <p><i>Presenter: David Tice, Amec Foster Wheeler</i></p>	<p>PWSCC Initiation Model Refinement for xLPR Part II: A Statistical Framework for the Integration of Field and Laboratory Data</p> <p><i>Presenter: Kyle Schmitt, Dominion Engineering Inc.</i></p>	<p>Investigation of the Susceptibility of Alloy 800 Tubing to Degradation in an Acidic, Sulphate-Dominated Environment at 300°C</p> <p><i>Presenter: Jagan Ulaganathan, Canadian Nuclear Laboratories</i></p>
<p>Influence of Steel Sulfur Content on Corrosion Fatigue Crack Growth of Types 304 and 316 Stainless Steels in High Temperature Water</p> <p><i>Presenter: David Tice, Amec Foster Wheeler</i></p>	<p>Modelling of the Effects of Welding Parameters on Inter-granular Cracking in Inconel 600</p> <p><i>Presenter: Youfa Yin, Loughborough University</i></p>	<p>Examination of ET-Indications of Steam Generator Tubes from the Almaraz Unit 2 NPP Replacement Steam Generator SG3</p> <p><i>Presenter: Renate Kilian, AREVA GmbH</i></p>
<p>Microstructural Characterisation of Type 316 Austenitic Stainless Steels: Implications for Corrosion Fatigue Behaviour in PWR Primary Coolant</p> <p><i>Presenter: Kudzanai Mukahiwa, University of Manchester</i></p>	<p>Dissimilar Metal Weld PWSCC Initiation Model Refinement for xLPR Part I: A Survey of Alloy 182/82/132 Crack Initiation Literature</p> <p><i>Presenter: Greg Rroyer, AREVA, Inc.</i></p>	<p>A Stressed Tube, Boiling Heat Transfer Corrosion Test to Evaluate Sulfate Contamination</p> <p><i>Presenter: Frederick Miller, Bechtel Marine Propulsion Corporation</i></p>
<p>Corrosion Fatigue and Crack-Tip Microscopy: Applying High Resolution EDX Analysis to Study the Nature of Crack Growth Retardation in Type 304 Austenitic Stainless Steels</p> <p><i>Presenter: M. Grace Burke, University of Manchester</i></p>	<p>Residual Stress Measurements in PWR Dissimilar Metal Welds</p> <p><i>Presenter: Michael R. Hill, University of California, Davis</i></p>	<p>The Potential Impact of All Volatile Based Water Chemistry with Lead (Pb) Sludge Additions and Microstructural Variability in Alloy 690 on Stress Corrosion Cracking Performance</p> <p><i>Presenter: Jennifer Schuttig, Bechtel Marine Propulsion Corporation</i></p>

IASCC Characterization & Mechanisms	IASCC Testing & Engineering Assessments	PWR Stainless Steel SCC
<p>SEM-EBSD and TEM Analysis of Stress Corrosion Crack Initiation Sites in Neutron-irradiated Austenitic Stainless Steels</p> <p><i>Presenter: Maxim Gussev, Oak Ridge National Laboratory</i></p>	<p>IASCC Behavior of Alloy 625 and Alloy 625 Plus in Light Water Reactors (LWRs) Environments</p> <p><i>Presenter: Mi Wang, University of Michigan</i></p>	<p>Transmission Kikuchi Diffraction Characterization of Intergranular Stress Corrosion Cracking in Grade 316 Stainless Steel</p> <p><i>Presenter: Martina Meisnar, University of Oxford</i></p>
<p>Composition and Morphology of the Oxide Film formed on 316L Stainless Steel during In-situ Proton Irradiation in PWR Conditions</p> <p><i>Presenter: Stephen Raiman, University of Michigan</i></p>	<p>IASCC Behavior of Proton Irradiated 316 Stainless Steels in PWR Simulated Water</p> <p><i>Presenter: Seong Sik Hwang, KAERI</i></p>	<p>High-Resolution Characterization of the Temperature Dependence of Stress Corrosion Crack Propagation in Grade 316 Stainless Steel</p> <p><i>Presenter: Martina Meisnar, University of Oxford</i></p>
<p>Effects of Locally Deformed Structure on Oxide Film Properties in Neutron-irradiated Austenitic Stainless Steel</p> <p><i>Presenter: Yasuhiro Chimi, Japan Atomic Energy Agency</i></p>	<p>Irradiation-Assisted Stress Corrosion Crack Growth Rates of Austenitic Stainless Steels in Light Water Reactor Environments</p> <p><i>Presenter: Ernest Eason, Modeling & Computing Services LLC</i></p>	<p>The Effect of Cold Work and Boron Content on the SCC Crack Response of Dual Certified Type 304/304L Stainless Steel</p> <p><i>Presenter: Kevin Fisher, University of Michigan</i></p>
<p>The Dependence of IASCC Initiation on Dislocation Channeling in Neutron Irradiated Stainless Steel</p> <p><i>Presenter: Kale Stephenson, University of Michigan</i></p>	<p>Crack Growth Rate and Fracture Toughness J-R Curve Tests on Irradiated Cast Austenitic Stainless Steels</p> <p><i>Presenter: Yiren Chen, Argonne National Laboratory</i></p>	<p>Effect of Surface Finish on the Corrosion Behaviour of Stainless Steels in Pressurised, High Temperature, Lithiated Water</p> <p><i>Presenter: Jonathan Morrison, University of Birmingham</i></p>
<p>Mitigation of IASCC Susceptibility in a BWR-irradiated 304L Stainless Steel Utilizing Post-irradiation Annealing</p> <p><i>Presenter: Justin Hesterberg, University of Michigan</i></p>	<p>Stress Corrosion Cracking of Irradiated Austenitic Stainless Steel in PWR Environment: Corrosion Behavior and Influence of Loading Conditions on Crack Initiation</p> <p><i>Presenter: Jyoti Gupta, CEA Saclay</i></p>	<p>Applying Advanced Analytical In-situ TEM to Assess Room Temperature SCC "Precursor" Reactions in Austenitic Stainless Steels in H₂O</p> <p><i>Presenter: Sibylle Schilling, University of Manchester</i></p>
<p>Relation between Irradiation Assisted Stress Corrosion Cracking and Discontinuous Slip at Grain Boundaries</p> <p><i>Presenter: Michael McMurtrey, University of Michigan / University of Virginia</i></p>	<p>An Engineering Approach to Assess IASCC Initiation in Austenitic Stainless Steels of Light Water Reactor Internals</p> <p><i>Presenter: Yogen Garud, SIMRAND LLC</i></p>	<p>Flow Accelerated Corrosion Predictive Software BRT-CICERO™ Performances</p> <p><i>Presenter: Stephane Trevin, EDF</i></p>
<p>Effect of Post-irradiation Annealing on Microstructure, Hardening, Localized Deformation and IASCC of a Proton-irradiated 304 Stainless Steel</p> <p><i>Presenter: Zhijie Jiao, University of Michigan</i></p>	<p>Experimental and Finite Element Analysis on Crack Growth in Neutron Irradiated Stainless Steels</p> <p><i>Presenter: Yugo Ashida, University of Michigan</i></p>	<p>High-temperature Corrosion Characteristics of Nano-structured Coatings in Secondary System of Nuclear Power Plants</p> <p><i>Presenter: Seunghyun Kim, Ulsan National Institute of Science and Technology</i></p>
<p>Oxidation Behavior of Alloys Simulating Grain Boundary Chemistry in Neutron-irradiated Austenitic Stainless Steels in Simulated PWR Primary Water</p> <p><i>Presenter: Guangdong Han, Shanghai University</i></p>	<p>Effect of Tensile Strain on Microstructure of Irradiated Core Internal Material</p> <p><i>Presenter: Hygreeva Kiran Namburi, Centrum Vyzkumu Rez</i></p>	<p>Boric-Acid Corrosion of Carbon Steel Below Defective Stainless Steel Cladding</p> <p><i>Presenter: Derek Lister, University of New Brunswick</i></p>
<p>Stress Corrosion Cracking of Proton Irradiated Accident Tolerant Fuel Cladding Candidate Alloy 33</p> <p><i>Presenter: Parag Ahmedabadi, University of Michigan</i></p>	<p>In-Pile Crack Growth Rate Testing of Irradiated 304L and 316L Stainless Steels in PWR and BWR Environments</p> <p><i>Presenter: Torill Karlsen, Halden Reactor Project, IFE</i></p>	<p>Characterization of the Oxide Film Formed in the Flow Accelerated Corrosion of Carbon Steels and its Relationship to Thinning Rate</p> <p><i>Presenter: Hiroshi Abe, Tohoku University</i></p>

Supercritical Water Corrosion	PWR Ni Alloy SCC Tests	PWR SCC Modeling
<p>Influence of Water Chemistry on Candidate Engineering Materials for the SCWR <i>Presenter: Igor M. Svishchev, Trent University</i></p>	<p>Acoustic Emission Monitoring of SCC Behavior in Superheated Hydrogenated Environment for Ni-Base Alloys <i>Presenter: Yohei Sakakibara, IHI Corporation</i></p>	<p>Role of Cavity Formation on a Long Term SCC Initiation in High temperature Water <i>Presenter: Koji Arioka, Institute of Nuclear Safety Systems</i></p>
<p>Comparative Study of Materials' Behaviour in Supercritical Water and Superheated Steam <i>Presenter: Peter McClure, Carleton University</i></p>	<p>Effects of Aging Treatments on Stress Corrosion Crack Initiation of Alloy 690 <i>Presenter: Wenjun Kuang, University of Michigan</i></p>	<p>Stress Corrosion Cracking of Cold-Worked Austenitic Stainless Steels in Primary Water of PWRs <i>Presenter: Emilien Burger, EDF R&D</i></p>
<p>Effect of Water Density/Pressure on the Corrosion Behaviour of Nickel Based Alloys IN 625 and A-286 <i>Presenter: Rainier Sanchez, Carleton University</i></p>	<p>Factor of Improvement on Resistance of Stress Corrosion Crack <i>Presenter: Tyler Moss, University of Michigan</i></p>	<p>A Simulation of IGSCC of Austenitic Stainless Steels Exposed to Primary Water <i>Presenter: Thierry Couvant, EDF R&D</i></p>
<p>Study of the Oxidation Behavior of the Alloy 690 in Three Environments: Liquid Water, Vapor and Supercritical Water <i>Presenter: Alberto Sáez-Maderuelo, CIEMAT</i></p>	<p>Effects of Cavitation Peening on the PWSCC Behavior of Alloys 600 and 182 <i>Presenter: Antoine Marion, AREVA NP</i></p>	<p>Development of a 'Local' Model to Predict SCC: Preliminary Calibration of Parameters for Nickel Alloys Exposed to Primary Water <i>Presenter: Thierry Couvant, EDF R&D</i></p>
<p>Comparison Study on Oxidation Behavior of Advanced Nickel-based Superalloys in Supercritical Water (SCW) <i>Presenter: Mohsen Sanayei, University of Saskatchewan</i></p>	<p>CGR Data from Alloy 690 CRDM Mock-Up <i>Presenter: Francisco Javier, Perosanz</i></p>	<p>Irradiation Damage Testing</p>
		<p>Development of small scale mechanical testing to evaluate materials property degradation in LWR environments. <i>Presenter: Peter Hosemann, UC Berkeley</i></p>
<p>Influence of Surface Finish on the Morphology of Oxide Scales Grown in Supercritical Water on Selected Ni-Fe-Cr Alloys <i>Presenter: Dorota Artymowicz, University of Toronto</i></p>	<p>Cold-Work Effects on Stress Corrosion Crack Growth in Alloy 690 Tubing and Plate Materials <i>Presenter: Stephen Bruemmer, Pacific Northwest National Laboratory</i></p>	<p>Hot Cell Laser Welding on Highly Irradiated Stainless Steels and Pressure Vessel Steel: Results from Initial Welding Trials <i>Presenter: Paula Freyer, Westinghouse Electric Company LLC</i></p>
<p>The Effect of Water Radiolysis on Corrosion in High-temperature Steam <i>Presenter: Hariharan Subramanian, The University of Western Ontario</i></p>	<p>Stress Corrosion Crack Initiation Measurements of Alloy 600 in PWR Primary Water <i>Presenter: Mychailo Toloczko, Pacific Northwest National Laboratory</i></p>	<p>Influence of Specimen Size on Fracture Toughness of Five Irradiated RPV Materials <i>Presenter: Randy K. Nanstad, Oak Ridge National Laboratory</i></p>

PWR Oxides & Deposits	PWR NI Alloy SCC Precursors	Zirconium & Fuel Cladding
<p>Metal Release Behavior of Alloy 690 Coated with Cr-Oxide in Simulated PWR Primary Water at High Flow Velocity</p> <p><i>Presenter: Yumi Momozono, Nippon Steel & Sumitomo Metal Corporation</i></p>	<p>Intergranular Oxidation of Alloy 600 Exposed to Simulated PWR Primary Water</p> <p><i>Presenter: Jacqueline Giovanna Caballero Hinostroza, EDF R&D</i></p>	<p>Fatigue Crack Initiation in Zr-2.5Nb Material Tested under Simulated CANDU Heat Transport System Conditions</p> <p><i>Presenter: Heidi Nordin, Canadian Nuclear Laboratories</i></p>
<p>Corrosion Behavior of Alloy 690 in Simulated PWR Primary Water at High Flow Velocity</p> <p><i>Presenter: Yasuhiro Masaki, Nippon Steel & Sumitomo Metal Corporation</i></p>	<p>Solution-Annealed and Thermally-treated Alloy 600 Preferential Intergranular Oxidation: A Comparison</p> <p><i>Presenter: Giacomo Bertali, University of Manchester</i></p>	<p>Water Ordering at Zirconia-Water Interface with High-Resolution X-ray Reflectivity</p> <p><i>Presenter: Changyong Park, Geophysical Laboratory, Carnegie Institution of Washington</i></p>
<p>In-situ Raman Spectroscopic Analysis of Oxidation Behavior of Alloy 182 in Primary Water Condition</p> <p><i>Presenter: T. Kim, Ulsan National Institute of Science and Technology</i></p>	<p>Recent Insights in the Deformation and Fracture of Oxidized Grain Boundaries in Austenitic Alloys: A Synergistic Experimental and Finite Element Study</p> <p><i>Presenter: Judith Dohr, University of Oxford</i></p>	<p>Oxide Characterization of In-situ Irradiation Accelerated Corrosion of Zircaloy-4 Under Proton or Electron Irradiation in PWR Primary Water</p> <p><i>Presenter: Peng Wang, University of Michigan</i></p>
<p>The Corrosion Behavior of Nickel-based Alloys 182 and 52 and 316 Stainless Steel in Cyclic Hydrogenated and Oxygenated Water Chemistry in High Temperature Aqueous Environment</p> <p><i>Presenter: Jian Xu, Tohoku University</i></p>	<p>Grain Boundary Oxidation of Nickel Base Welds 182/82 in Simulated PWR Primary Water</p> <p><i>Presenter: Cécilie Duhamel, MINES ParisTech, PSL - Research University</i></p>	<p>Development & Performance of Mo Fuel Cladding Under LWR and Severe Loss of Coolant Accident Conditions</p> <p><i>Presenter: Young-Jin Kim, GE Global Research Center</i></p>
<p>Influence of Dissolved Hydrogen Concentration on Fuel Crud Deposition under Sub-nucleate Boiling Condition</p> <p><i>Presenter: Hee-Sang Shim, KAERI</i></p>	<p>A Study on the Oxidation Behaviour of Nickel Alloys and the Likely Effect on PWSCC Susceptibility</p> <p><i>Presenter: Suraj Persaud, University of Toronto</i></p>	<p>Study of the Irradiation Induced Microstructural Change in Zr Excel Alloy with In-situ Heavy Ion Irradiation</p> <p><i>Presenter: Hongbing Yu, Queen's University</i></p>
<p>Advance High-resolution Data Mining to Understand Oxide Formation in Austenitic Alloys</p> <p><i>Presenter: Gemma Pimentel, University of Oxford</i></p>	<p>Precursor Corrosion Damage and Stress Corrosion Crack Initiation in Alloy 600 and Alloy 690 During Exposure to PWR Primary Water</p> <p><i>Presenter: Matthew Olszta, Pacific Northwest National Laboratory</i></p>	<p>Effect of Severe-cold-working on Microstructure of Zircaloy 2</p> <p><i>Presenter: Ryo Ishibashi, Hitachi, Ltd.</i></p>

BWR Crack Growth Testing	PWR Stainless Steel SCC Testing	PWR Ni Alloy SCC Material Factors
<p>Irradiation Assisted Stress Corrosion Cracking Susceptibility of Alloy X750 exposed to BWR environments</p> <p><i>Presenter: Sebastien Teyssyre, Idaho National Laboratory</i></p>	<p>SCC Growth Rate Testing of Cold Worked Stainless Steel in Hydrogen Deaerated Water</p> <p><i>Presenter: David Morton, Bechtel Marine Propulsion Corporation</i></p>	<p>Investigation of the Relationship between Local Plastic Strain Estimated by EBSD and Local Nanoindentation Hardness in Alloy 690</p> <p><i>Presenter: Richard Shen, KTH Royal Institute of Technology</i></p>
<p>The Outline of the JSCE Standard of the Method for Measuring SCC Growth Rate in High Temperature Water</p> <p><i>Presenter: Mikiro Itow, Toshiba Corporation</i></p>	<p>Stress Corrosion Cracking in a Stainless Steel 308L/316L Weld Joint in Primary Water</p> <p><i>Presenter: Quinjia Peng, Chinese Academy of Sciences</i></p>	<p>Effect of cold work and thermal ageing on the ordering mechanism of Alloy 690.</p> <p><i>Presenter: Roman Mougnot, Aalto University</i></p>
<p>Technical Basis of the JSCE Standard of the Method for Measuring SCC Growth Rate in High Temperature Water – Specimen Size Requirement</p> <p><i>Presenter: Taku Arai, CRIEPI</i></p>	<p>Evaluation of the Role of Dynamic Loads on the Stress Corrosion Cracking of Stainless Steels in Oxidizing and Reducing PWR Primary Environment</p> <p><i>Presenter: Nicolas Huin, Areva NP</i></p>	<p>The Effects of Metallurgical Factors on Stress Corrosion Crack Growth Rate for Cold Worked TT Alloy 690 in Simulated PWR Primary Water</p> <p><i>Presenter: Toshio Yonezawa, Tohoku University</i></p>
<p>The Effect of Temperature on the Crack Growth Rate of Ni-base Alloys in BWR Environment</p> <p><i>Presenter: Katsuhiko Kumagai, Tokyo Electric Company</i></p>	<p>Effects of Dissolved Hydrogen on the Environmentally Assisted Cracking Of 316 Stainless Steel in PWR Primary Water at 325°C</p> <p><i>Presenter: Xiangyu Zhong, Tohoku University</i></p>	<p>Effect of Polishing Process on Short-term Corrosion of Alloy 600 in High Temperature Water</p> <p><i>Presenter: Qunjia Peng, Chinese Academy of Sciences</i></p>
<p>Development and Analysis of an Alloy X-750 SCC Growth Rate Database</p> <p><i>Presenter: Peter Andresen, GE Global Research Center</i></p>	<p>Stress Corrosion Cracking Initiation Behaviour of L-Grade Austenitic Stainless Steels Under Static Loading in Oxidizing and Reducing Conditions in Hot Water</p> <p><i>Presenter: Lionel Fournier, AREVA</i></p>	<p>Effect of Work Hardened Inner Surface on Stress Corrosion Cracking for Austenitic Stainless Steel and Ni Based Alloys in Simulated PWR Primary Water</p> <p><i>Presenter: Toshio Yonezawa, Tohoku University</i></p>
<p>SCC Growth Rate of Irradiated and Unirradiated High Cr Ferritic Steels</p> <p><i>Presenter: Peter Andresen, GE Global Research Center</i></p>	<p>Assessing the Stress Corrosion Cracking Susceptibility of the Repaired Pressuriser Heater Well Inserts at the Sizewell B PWR in the UK</p> <p><i>Presenter: Stuart Medway, Amec Foster Wheeler</i></p>	<p>Off-plane stress Corrosion Cracking of Austenitic Stainless Steels and Nickel Base Alloys in High Temperature Water</p> <p><i>Presenter: Seiji Yaguchi, Mitsubishi Heavy Industries, Ltd.</i></p>
<p>Stress Corrosion Cracking of the 316L Stainless Steel by Additive Manufacturing in High temperature Water</p> <p><i>Presenter: Xiaoyuan Lou, GE Global Research Center</i></p>	<p>The Electrochemical Behavior and Stress Corrosion Cracking of Cold Rolled 316L Stainless Steel in Simulated PWR Water Environments</p> <p><i>Presenter: Junjie Chen, Shanghai University</i></p>	<p>Effect of Cr Concentration on Grain Boundary Corrosion and IGSCC Response of Ni-Cr Alloys in Simulated PWR Primary Water</p> <p><i>Presenter: Daniel Schreiber, Pacific Northwest National Laboratory</i></p>
<p>Applicability of the Contoured Double Cantilever Beam Specimen for Crack Growth Tests under Constant Stress Intensity Factor</p> <p><i>Presenter: Yoichi Takeda, Tohoku University</i></p>		

Low Temperature Corrosion & Waste Storage	Fukushima	Irradiation Damage
<p>Guidelines for Avoiding Galvanic Corrosion in Nuclear Plant Piping Systems <i>Presenter: George Licina, Structural Integrity Associates, Inc.</i></p>	<p>Corrosion and Corrosion Protection for Reactor Pressure Vessels / Primary Containment Vessels in Fukushima Daiichi Unit 1-3 Nuclear Power Plant <i>Presenter: Tetsuji Kaneko, Toshiba Corporation</i></p>	<p>The Competing Influences of Void Swelling and Radiation-induced Precipitation on Dimensional Stability and Thermal-physical Properties of Austenitic Stainless Steels in PWR and VVER Internals <i>Presenter: Frank A. Garner, Radiation Effects Consulting</i></p>
<p>Identification of Potential Degradation Phenomena for Spent Fuel Dry Cask Storage Systems <i>Presenter: Greg Oberson, U.S. Nuclear Regulatory Commission</i></p>	<p>Determining the Repassivation Potential for Crevice Corrosion of 316L Stainless Steels and Alloy600 in Chloride-Containing Environment <i>Presenter: Hiroki Iwakane, Tohoku University</i></p>	<p>Use of Self-Ion Bombardment to Study Void Swelling in Advanced Radiation-Resistant Alloys <i>Presenter: Frank A. Garner, Radiation Effects Consulting</i></p>
<p>Radiolytic Corrosion of Copper Nuclear Waste Containers <i>Presenter: Balsam Ibrahim, The University of Western Ontario</i></p>	<p>Evaluation of Corrosion Behavior for PCV Material with Various Anionic Species in Diluted Artificial Seawater <i>Presenter: Shinichi Ishioka, Hitachi-GE Nuclear Energy Ltd.</i></p>	<p>Phase Instability and Martensitic Transformation as a Potential Degradation Mode of Nuclear Plant Internal Components <i>Presenter: Maxim Gussev, Oak Ridge National Laboratory</i></p>
<p>Radiation-Assisted Corrosion of Carbon Steel Nuclear Waste Container at Weld Region <i>Presenter: Linda Wu, The University of Western Ontario</i></p>	<p>An Overview of Corrosion Mitigation Activities after Fukushima-Daiichi Accident <i>Presenter: Yuichi Fukaya, Tokyo Electric Power Company</i></p>	<p>APT Measurement of Stainless Steel Welds after Long Time Aging and Irradiation <i>Presenter: Katsuhiko Fujii, Institute of Nuclear Safety System, Inc.</i></p>
<p>Interactions between Carbon Steel and UO₂ Corrosion Fronts Inside a Failed Nuclear Waste Container <i>Presenter: Shannon Hill, The University of Western Ontario</i></p>	<p>Evaluation of Corrosion Behavior of Piping Material in Flowing Diluted Seawater <i>Presenter: Ryuji Umehara, Mitsubishi Heavy Industries Ltd.</i></p>	<p>Evaluation of Strategies for Obtaining High Fluence Materials to Assess Irradiation-Assisted Degradation of PWR Internals <i>Presenter: Jean Smith, EPRI</i></p>
<p>Progress in the Investigation of Nuclear Power Plant Cable Aging <i>Presenter: Leonard Fifield, Pacific Northwest National Laboratory</i></p>	<p>Effect of Gamma-ray Irradiation on the Spontaneous Potential of a Stainless Steel in the Zeolite Containing diluted Artificial Seawater <i>Presenter: Chiaki Kato, Japan Atomic Energy Agency</i></p>	<p>Thermal Aging and Low Dose Neutron Irradiation Effect on the Microstructural Stability of Delta Ferrite in 308L Austenitic Stainless Weld <i>Presenter: Zhangbo Li, University of Florida</i></p>
		<p>Low-temperature Swelling in LWR Internal Components: A Computational Assessment <i>Presenter: Roger Stoller, Oak Ridge National Laboratory</i></p>

BWR SCC & Water Chemistry

Effectiveness of Hydrogen Water Chemistry on Type 304 Stainless Steels treated with Pt in Simulated BWR Startup Environments

Presenter: Tsung-Kuang Yeh, National Tsing Hua University

Ferritic Steel FAC & other Conditions

Effect of Temperature on the Corrosion Behavior of Magnetite and Carbon Steel in Secondary Water

Presenter: Soon-Hyeok Jeon, KAERI

Effects of Temperature and Solution Composition on Corrosion Behavior of A508III Low Alloy Steel in Simulated PWR Primary Water

Presenter: Qian Xiao, Shanghai University

Fukushima

Reliability and Long Term Behavior of Novel Accident Level Measurement Devices in Simulated Fuel Pool Environment

Presenter: Steffen Berger, AREVA GmbH

Irradiation Damage

Investigation into the Microstructural Changes of Inconel X-750 Spacer Material during Fe²⁺/He Dual Beam Irradiation using In-situ TEM Observation

Presenter: Pooyan Changizian, Queen's University

Low Temperature Corrosion & Waste Storage

Effects of Hydrogen in Alloy 690 on Interfacial Reaction Kinetics

Presenter: Xiaofeng Xia, Shanghai University

Progress in Assessment of Non-Destructive Techniques for Evaluating the State of Aging Cables in Nuclear Power Plants

Presenter: Pradeep Rumuhalli, Pacific Northwest National Laboratory

Progress in Rejuvenation of Aging Nuclear Power Plant Cable Insulation

Presenter: Leonard Fifield, Pacific Northwest National Laboratory

Using Synchrotron Light to Follow Aluminium Corrosion in Cement, a Simulation for Studying Reactions in Intermediate Level Waste Packages

Presenter: Nicholas Harker, ESRF

PWR Ni Alloy SCC Material Factors

The Analysis of Microstructure and Grain Orientation of Thermally-aged and Forged Alloy 600

Presenter: Seung Chang Yoo, Ulsan National Institute of Science and Technology

Morphology Evolution of Grain Boundary Carbides in Highly Twinned Inconel Alloy 600 and 690

Presenter: Hui Li, Shanghai University

Effects of Grain Boundary Structure on the Carbide Precipitation in Alloy 690

Presenter: Shuang Xia, Shanghai University

Effect of Laser Shock Peening on SCC Behavior of Alloy 600 in High Temperature Water

Presenter: Abhishek Telang, University of Cincinnati

PWR Ni Alloy SCC Precursors

Characteristics of Surface Oxide Layers Formed on Alloys 600 and 690 in a PWR Primary Water Environment

Presenter: Yun Soo Lim, KAERI

Grain Boundary Characterization for Initial Stage of IGSCC of Alloy600 in PWR Primary Water Environment

Presenter: Ki-Taek Jung, Osaka University

PWR Ni Alloy SCC Tests

The Effects of Cooling Rate on PWSCC Initiation in Alloy 600

Presenter: SungSoo Kim, KAERI

Effect of Dissolved Oxygen on Corrosion Fatigue Cracking of Alloy 690(TT) in PWR Environments

Presenter: Jun Xiao, Nuclear Power Institute of China

Effects of Dissolved Hydrogen and Zinc Contents on PWSCC Initiation Behaviors of Alloy 182 Weld in PWR Primary Water

Presenter: Ho-Sub Kim, KAIST

PWR Oxides & Deposits

Investigation of the Impact of Coatings on the Corrosion of Nuclear Components

Presenter: Kevin Daub, Canadian Nuclear Laboratories

Mechanisms of CRUD Deposition in PWR Plants

Presenter: Nathan Johnson, University of Birmingham

Kinetics of Zinc Uptake into Reactor Relevant Oxide Films

Presenter: Thomas Caswell, University of Birmingham

Characterization of Oxide Films on Alloy600 and Alloy690 in PWR Primary Water Environment

Presenter: Shinji Fujimoto, Osaka University

Properties of the Oxide Films on Ni-Cr-xFe Alloys in Simulated PWR water Environments

Presenter: Xiangkun Ru, Shanghai University

Corrosion of Forged 316LN Stainless Steel in High Temperature Pressurized Water

Presenter: En-Hou Han, Chinese Academy of Sciences

PWR SCC Modeling

The Stress Corrosion Cracking Mechanism of Austenitic Ni-Cr-Fe Alloys

Presenter: Young Suk Kim, KAERI

Overview of Radiation-induced Electrolytic Corrosion in Accelerated Corrosion Issues of Aged LWRS

Presenter: Genn Saji, Ex-Secretariat of Nuclear Safety Commission

Some Mechano-electrochemical Aspects of SCC in High Temperature Water and Related Modeling

Presenter: Zhanpeng Lu, Shanghai University

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PWR Secondary Side

Characterization of Oxide Films and Electrochemical Behavior of Alloy 800 in PWR Secondary Water Environment

Presenter: Monica Schwartzman, Centro de Desenvolvimento da Tecnologia Nuclear (CDTN/CNEN)

PWR Stainless Steel SCC Testing

SCC and Fatigue Behavior of 316LN in High Purity and Borated-Lithiated Water

Presenter: Donghai Du, Shanghai Jiao Tong University

Welds, Assessments & Modeling

Validation Approaches for Computational Weld Residual Stress Modeling

Presenter: Michael R. Hill, University of California, Davis

Zirconium & Fuel Cladding

Characterization of Pre- and Post-transition Oxides Formed on ZIRLO

Presenter: Ho Yeon Bae, Pusan National University

Hydrogen Ingress through the End Fitting to Pressure Tube Rolled Joint in CANDU Reactors

Presenter: Scott Langille, Carleton University

Effect of Cu on the Corrosion Behavior of Zr Alloy in LiOH Solution

Presenter: Xue Liang, Shanghai University

Effect of Water Chemistries on Oxidation Behavior of β -Nb Precipitates in Zr-1Nb-xBi Alloys

Presenter: Meiyi Yao, Shanghai University